L.I. 99ER NEWSLETTER

The Newsletter of the Long Island 99'er Users Group

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LONG ISLAND SOUND

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HAPPY VALENTINES DAY

1992 COMPUTER FAIR SCHEDULE

COMPILED BY: FRANK BUBENIK, JR.

FEB 1, 1992 (SAT) WM PATTERSON COLLEGE. WAYNE, NJ. 400 TABLES. I-80 TO RTE 23. 10AM 4PM. 10AM/4PM. KGP.

>>>> FEB 15-16, 1992- (SAT/SUN) TI FEST WEST 1992. Vast User Group Host. DAYS INN-PHOENIX/CAMELBACK- 502 W. CAMELBACK, PHOENIX, AZ 85013- (602) 264-9290 OR 800-688-2021. Room rates $54.00 per day (1 to 4 people in room per day). Airport pick up/and return. Admission $5.00 for both days. Time: 9am-5pm and 9am-3pm. More info: BBS 233-0790 OR H.KNIGHT (602) 938-5446 OR R. REES (602) 869-8145.

FEB 15-16, 1992 (SAT/SUN) RARITAN CENTER. EDISON, NJ. OFF NJ TPKE #10. 800 TABLES. SAT 10AM 5PM. SUN 10AM 4PM. 90,000 Sq. Feet. Largest indoor show in the U.S. Cost $8.00. KGP.

FEB 22, 1992 (SAT) WOBURN, MA. NORTHEST TRADE CENTER. 400 TABLES. I-95 (RTE 128) EXIT #35. 10AM 4PM KGP.

>>>> MAR 14, 1992 (SAT) T.I.C.O.F.F. 1992 - FAMILY COMPUTER EXPOSTION. ROSELLE PARK H.S. 185 WEST WEBSTER AVE. ROSELLE PARK,NJ 07204. CONTACT: BOB GUBUNITZ, (908)241-4550 OR BBS (908)241-8902 FOR INFO.

MAR 21, 1992 (SAT) ASPEN MANOR - PARSIPPANY, NJ. ROUTE 46 WEST. NEAR I-80,I-280,I-287. 400 TABLES. 10AM/4PM. KGP.

>>>> APR 4, 1992 (SAT) TI/NORTHEAST COMPUTER FAIR/BOSTON COMPUTER SOCIETY. CONTACT: RON WILLIAMS. 14 EAST ST. AVON,MA 02322 (508) 584-0342. 10AM-4PM.

>>>> MAY 16. 1992 (SAT) 5TH ANNUAL LIMA MULTI USER GROUP CONFERENCE(U OF OHIO). 9AM-5PM. CONTACT:DAVID A. SZIPPL. (419)228-7109.

>>>> SEP 19, 1992 (SAT) TACOMA, WASH. TI CONVENTION. CONTACT JIM TOMKINS (206) 756-0934.

>>>> OCT 30/31, 1992 (FRI/SAT) CHICAGO 10th EDITION CHICAGO TI INTERNATIONAL FAIR. ELK GROVE HOLIDAY INN- ELK GROVE VILLAGE, IL. FREE SHUTTLE FROM O'HARE AIRPORT. RESERVATIONS AT HOTEL DIRECTLY (708)437-6010 "IWF". More info later.

>>>> NOV 1, 1992 (SUN) MILWAUKEE TI FAIR- INFO CALL GENE HITZ (414) 535-0133.

**** DISCLAIMER ****

LITI 99ERS NEWSLETTER IS NOT RESPONCIBLE FOR CANCELATIONS OF SHOWS. PLEASE CALL THE NUMBERS BELOW TO VERIFY TIME AND DATES BEFORE YOU GO.

* Ken Gordon Productions (KGP) SHOWS COST $8.00- $1.00 discounts with mail cards. Call (800)631-0062 OR (908)297-2526 for info. (REV 11/09/91).

* Tri-State Computer Fairs (TSCF) gives $1.00 discount with mailed cards. Call Robert Barlow (201)533-1991 for info. (REV 11/9/91).

Making a Boolean Register

In last month's installment, we covered what a Boolean Variable (BV) is (basically a logic on/off indicator) and some of the ways they might be used. Just as I was about to get into how many flags can be stored in a single variable, I ran out of page. A BV, since it only has two states (on/off, up/down, yes/no etc.) really only needs a single bit in which to store it's state. A byte, haveing 8 bits, can be thought of as a collection of 8 BV's if used properly. Since any variable used in TI's Basic uses at least two bytes, I had thought we could create a variable that would have 16 flags in it. The limit, as it turns out, is 15 flags and that has nothing to do with the number of bits available. It has to do with the operators that are used to turn the individual bits on and off, OR and XOR. On page 43 of the Ex-Basic manual, the numbers with which these operators can function range from -32,768 to +32,767. Those numbers take up exactly two bytes (16 bits) but the sign (+/-) uses the leftmost bit, which leaves only 15 bits for us to work with.

In order to be able to Set, Reset and Test individual bits, you must have the values of the bits in an array (or they may be calculated on the fly if you prefer), as well as the SUB-Routines to perform the functions. My approach was to declare an array, and fill it with the appropriate values, like this:

```
XX10 DIM BIN(14)
XX20 FOR I = 0 TO 14 :: BIN(I) = 2^I :: NEXT I
```

Now, with a variable I called REG and a flag called FLAG, (creative, aren't I?), we are ready to forge ahead. The following SUB-Routines are the result of many grueling hours of research, testing refinement.

```
XXX10 SUB SET(BIN(),BIT,REG)
XXX20 REG = REG OR BIN(BIT)
XXX30 ENDSUB
XXX40 !
XXX50 SUB RESET(BIN(),BIT,REG)
XXX60 REG = REG XOR BIN(BIT)
XXX70 ENDSUB
XXX80 !
XXX90 SUB TEST(BIN(),BIT,REG,FLAG)
XX100 FLAG - (TRUE-(REG AND BIN(BIT)))
XX110 SUBEND
```

Can we dispense with the SUB-Routines? That's a choice that you have to make. Are you going to write programs that are consistently structured and modular in design? Do you want to be able to easily add to your toolbox? If you are serious about programming, and you do enough of it, you will soon welcome any opportunity to avoid, as it is called, "The perpetual re-invention of the wheel."

Those who dislike being preached at may skip the above paragraph, but don't skip this one. The first SUB, called SET (more creativity), is passed the array where we have stored our bit values, a

pointer to the bit that is going to be addressed and, of course, the variable REG. The operator OR is one of those double duty operators which performs one function when used for comparisons and an entirely different function when, as in this case, it is handed two numbers to work with and asked for a result. By making REG both the target of the OR operator, and one of the objects to be examined, OR can be made to examine the bit(s) in REG which correspond with the bit(s) in the other value, and see that they match. For the purpose of illustrating this point, let's imagine a variable with only 4 bits, called NIBL. The values of these bits would be 1, 2, 4 and 8, and the range of values possible would thus be between 0 and 15. Let's say that bits 2 and 4 are set, giving a value of 10 (1010). If we now make NIBL the subject of comparison with the value of 1 (0001), using the OR operator, the result would be 11 (1011), because OR will Set every bit that is Set in either value being compared. By coding NIBL = NIBL OR 1, we are guaranteeing that the 1 bit is Set. If this still isn't clear, write some code and expiriment with it.

The SUB called RESET uses the XOR operator which functions in exactly the opposite manner of the OR operator. If two corresponding bits are both off or both on, the result is a 0 (reset), but if one bit is on and the other is off (that is exclusively one or the other is on) the result is a 1 (set). If we now compare NIBL (1011) with 2 (0010), using the XOR operator, and return the result to NIBL, bits 1, 3 and 4 will be left unchanged, but bit 2, because it is set in both objects being compared, will be reset, and the result will be 9 (1001). Getting these two SUB's to work was a pretty simple enough and then I ran into an unexpected glitch.

As you can see in the SUB TEST, the AND operator is used to examine bits to see if they match, and thus determine if a particular bit is on or off. Logic tells me that making FLAG the direct object of such a comparison should work. Since a computer can be considered a kind of Logic Machine, we usually see eye to eye on these things. The result I was getting was consistently the opposite of what I expected. Why I tried the formula FLAG = (TRUE = (REG AND BIN(BIT))), I'm not exactly sure. I think I intended to try comparing the results to FALSE but this worked and that's all that counts.

Should you ever find that you need to keep track of this many BV's, and you don't want to waste a lot of space by having a separate variable for each one (in designing a game for instance) then this method should come in very handy. You might even find other uses for this kind of bit manipulation and, if you do, I would like to hear about it.

Getting this months article written has been a real challenge. The system has been acting totally flaky all day. I have pulled and reset cards, pushed down chips and generally fiddled with everything I could reach without taking the console apart. (That is definitely a last resort.) I have even dug out an old power line monitor to see if Lilco is to blame for all the flickering going Out To Lunch that its been doing. So far the results are inconclusive but it looks as though I may have to actually fix some of the consoles I have lying around here. I'll let you know what happens. Meanwhile, remember to be kind to Mother Earth, and MTFBWY. Val M.

AV-INDEX LOADER.

By Frank J. Bubenik, Jr.

When I was in Boston, several years ago, I purchased AV-INDEX from Peter Hoddie at the Boston U.G. Faire. He was demoing it and showed me how to load the program using a loader.

CATALOG OF AV-INDEX DISK.

```
--------------------------
AVINDEX....90 INT/VAR 254
CONFIG.....2 INT/FIX 255
FILT.......4 DIS/FIX 80
INDEX1.....8 DIS/VAR 80
LOAD.......35 PROGRAM
LOADER.....2 PROGRAM
PALETTE16...2 DIS/FIX 48
```

The rest of the files were samples of labels.

The LOADER PROGRAM read as follows:

```
100 REM AV-INDEX LOADER
110 RUN "DSK1.AVINDEX"
120 END
```

TYPE DSK1.LOADER or RUN "DSK1.LOADER".

This program was on the disk I purchased at the faire.

When I got back to Long Island, I tried it in my standard TI/99/4A. It worked, but I thought there was something wrong with the graphics. I made a back up copy and waited till the MANNERS SHOW in Virgina to exchange the disk for a new one. Guess what? The new disk WOULD NOT LOAD. I checked the catalog of the new disk and LOADER was missing. In newsletters and at the Manners show people where complainning that there disks did not work.

The LOAD program must be used in the assembly programming.

I compared the back up disk and the new disk and found the LOADER was missing from the new disk. I installed LOADER from the B/U disk and the new disk worked.

Here is a NEW VERSION of XB LOADER.

```
100 REM AV-INDEX LOADER by Frank J. Bubenik,Jr.
105 CALL CLEAR :: CALL SCREEN(5):: FOR @=0 TO 14 :: CALL
COLOR(@,16,1):: NEXT @
110 DISPLAY AT(12,6):"LOADING AV-INDEX"
120 DISPLAY AT(14,6):"PLEASE WAIT....."
130 RUN "DSK1.AVINDEX"
140 END
```

I think it's much classier.

CONFIGURATION SCREEN:

When the AV-INDEX V1.2 TITLE comes up. HIT <ENTER>. Enter the date as requested. This installs the date on your labels later.
HIT <ENTER>. Pick option 7: CONFIGURATION.
Set Configuration Screen.
Program Drive No. is...1
Data Drive No. is.....2
If only 1 drive use.....1
Printer Name is.....PIO.CR
List all files on disk? y/n Y
Change printer config? y/n Y

PRINTER SCREEN:

PRINTER: Name and model number.

I left the rest blank. It works with my Panasonic KX-P1091 (EPSON TYPE).
Is data correct? y/n Y

A year later I purchased OPA'S TINY TIM AND SOB. Boy! What a difference in 80 COLUMN. The whole label is shown on the screen.

View of an 80 column screen.

AV-INDEX V1.2 - Today is JAN. 04, 1992

```
(                    VHS TAPE #100                                  )
(TITLE                                                              )
(TITLE                                                              )
(TITLE                                                              )
(TITLE                                                              )
__etc_____________________________________________________________
```

```
          (-------------------------------------)
(*)VHS TAPE #100                                )
          ( 1                                   )
          ( 2                                   )
          ( 3                                   )
           -etc-------------------------------
```

* This is the hole in the graphics I thought was wrong.

NO WINDOWS! Like in 40 column mode.

The program sets your computer for 40 or 80 column screen.

I hope this helps some one to get their program to work.

FAMILY COMPUTER EXPOSITION - OUR 7TH YEAR!

T.I.C.O.F.F.'92

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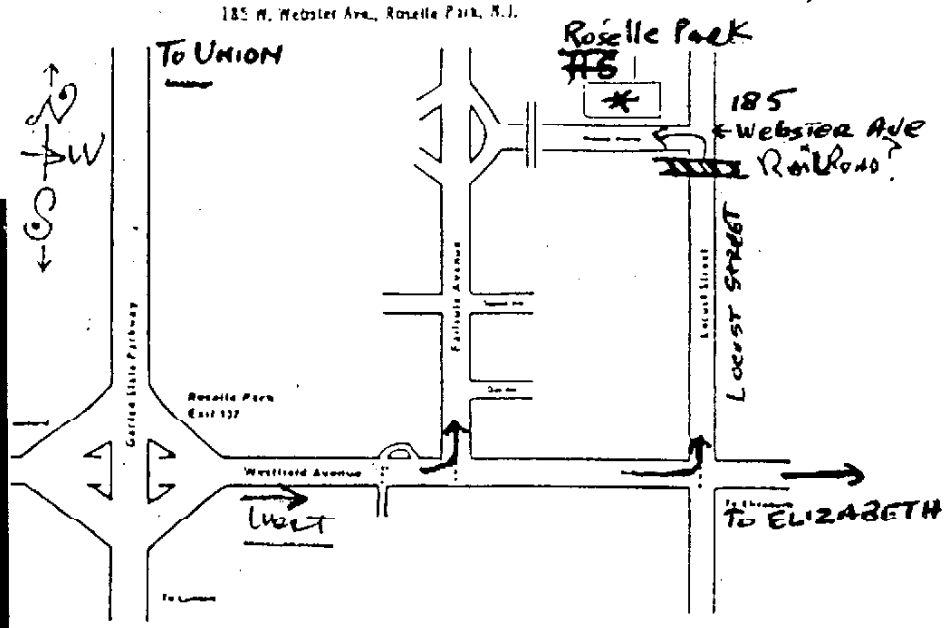
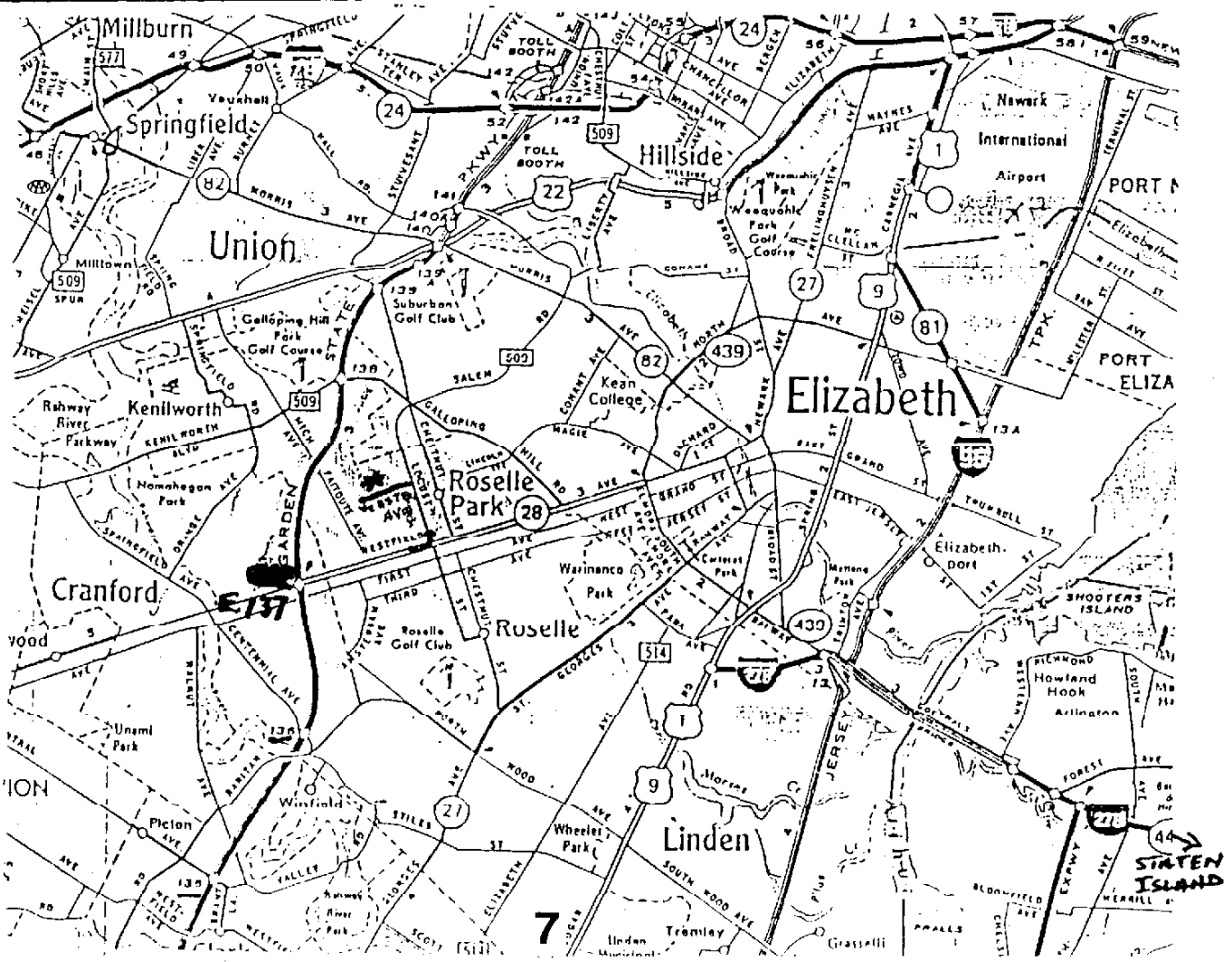
185 W. Webster Ave., Roselle Park, N.J.



Coming North or South on the Garden State Parkway, exit at 137 and turn left onto Westfield Avenue. Proceed on Westfield Ave. to the third traffic light and turn left onto Locust Street. Proceed up Locust Street and turn left immediately after Railroad Underpass. Roselle Park High School is two blocks in on Webster Avenue. School's phone number - (908) 241-4550.



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NEC DEVELOPING PCS YOU WEAR

Put on a personal computer

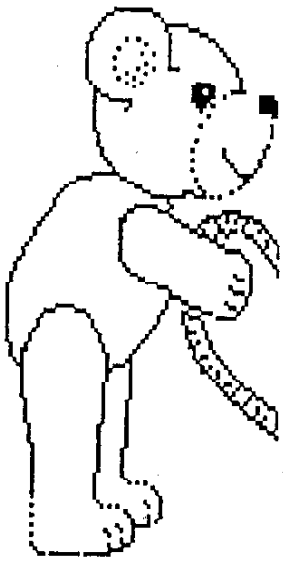
Tokyo — Why lug a dull, utilitarian personal computer around when you can wear a PC that not only frees your hands but comes in sporty designer colors too? NEC is envisioning a series of computers to be worn around the neck that would include not only machines customized for specific professions, but also systems that could almost be considered accessories.

The Wearable Data Terminal is aimed at inventory managers; it would be worn over the shoulder and included a forearm bar-code reader. The Lapbody Computer—aimed at writers who don't have access to a desk—hangs from the shoulder and has a keyboard and LCD screen that folds out. A computer for emergency medical technicians would allow them to check patients' vital signs and injuries with a handheld track ball containing an 8-millimeter video camera and sensors; the patient's medical history would be displayed in 2-D glasses, and a built-in comlink would transmit data and video to hospital physicians for consultation. Expect to wait 10 or 15 years for these devices.

By 1993, however, NEC plans to release a hands-free telephone for skiers—walkie-talkies are currently popular on Japan's ski slopes, but other people can listen in. A wearable, wireless CD player also can be expected in the next few years. "We are moving closer to the world of *Star Trek* than the black box," said Hideji Takemasa, designing supervisor of the advanced design division at NEC. —*Douglas Kaplan*

NEC hopes to develop PCs that a user wears, leaving his hands free.

"ARTIST CARDSHOP"



AFTER 2 YEARS IN THE MAKING, ARTIST CARDSHOP IS FINISHED. GET SET FOR SOME AWESOME CARD MAKING!

LIKE ITS PREDECESSOR, ARTIST PRINTSHOP, THIS PACKAGE IS ALL-ASSEMBLY FOR SPEED AND POWER.

ITS FEATURES INCLUDE:
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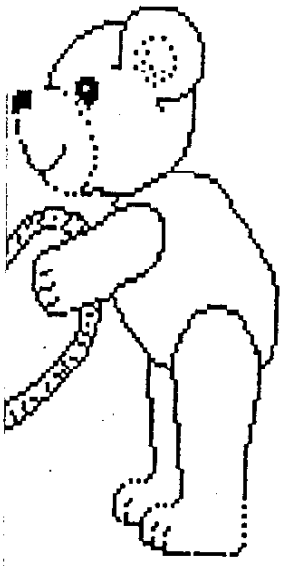
PATTERNED AFTER THE "SIGNMAKER" PROGRAM IN ARTIST PRINTSHOP, THIS PROGRAM IS VERY EASY TO USE. YOU'LL BE PRINTING OUTSTANDING CARDS IN A MATTER OF MINUTES! TO ORDER YOURS SEND $20.00 + $1.50 S/H TO: PAUL COLEMAN, 3971 S.E. LINCOLN, PORTLAND, OR 97214



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LONG ISLAND SOUND

THE NEWSLETTER OF THE LONG ISLAND 99ER'S U. G.

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